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Lt. Governor



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Chairperson, Board of Agriculture

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Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
Pesticides Program
1428 South King Street
Honolulu, Hawaii 96814-2512
Phone: (808) 973-9402 FAX: (808) 973-9418

March 2, 2016

WARNING NOTICE

Certified Mail No. 7014 0150 0001 1636 4092
Return Receipt Requested

The Corporation Company
Agent for Syngenta Hawaii, LLC
1136 Union Mall Ste 301
Honolulu, HI 96813

RE: Violation of Chapter 149A of the *Hawai'i Revised Statutes*

Dear Agent:

Please be advised that an inspection conducted by the State of Hawai'i Department of Agriculture on December 18, 2014, revealed evidence of violations of the Hawai'i Pesticides Law as set forth in Chapter 149A of the *Hawai'i Revised Statutes* ("HRS"). This WARNING NOTICE is issued to you pursuant to HRS section 149A-41(a).

The inspection took place in response to a self-reported incident.

The following are the factual circumstances of the violation:

1. On December 18, 2014, Hawaii Department of Agriculture (HDOA) inspector Ann Kam (Inspector Kam) conducted an inspection of Syngenta Hawaii, LLC ("Syngenta") located at 7050 Kaumualii Highway in Kekaha, Hawaii.
2. Inspector Kam met with Sprayer Tech Michael Girod at Syngenta.
3. Inspector Kam issued Girod a Notice of Pesticide Use/Misuse Inspection form.
4. Inspector Kam advised Girod that the purpose of the inspection was to follow up to the self-reported incident Girod had filed on December 17, 2014.



5. Inspector Kam also interviewed Field Tech Paul Mariano.
6. Girod informed Inspector Kam that on December 12, 2014, from 5:45 P.M. to 6:15 P.M., he mixed and applied a dilution of LORSBAN ADVANCED INSECTICIDE (62719-591) to Kaheka fields 312-A21 to 25, A15, and B07.
7. Girod informed Inspector Kam that warning sign at the entrance of field 312-A15 listed the reentry time as 5:45 P.M. on December 10, 2014.
8. The REI for field 312-A15 would have expired at 5:45 P.M. on December 13, 2014.
9. Mariano informed Inspector Kam that he entered field 312-A15 prior to 5:45 P.M. on December 13, 2014.
10. The LORSBAN ADVANCED INSECTICIDE label states: "**Agricultural Use Requirements** . . . Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR Part 170. . . Do not enter or allow entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop. . . . PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and involves contact with anything that has been treated, such as plants, soil, or water, is: *Coveralls over short-sleeved shirt and short pants *Chemical-resistant gloves made out of any waterproof material * Chemical-resistant footwear [sic] plus socks * Chemical-resistant headgear for overhead exposure . . . **Corn (Field, Sweet, Seed) Worker Restricted Entry Interval:** Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn. . . ."
11. Inspector Kam obtained a statement from IPM lead Emilee Wedekind that Syngenta has reviewed the incident with Agronomy Manager Robin Robinson, HSE Lead Jeremy Hausam, and Third party Coordinator Arthur Brun, and that WPS improvements will be made.
12. Inspector Kam was informed that Robinson and Hausam reviewed the WPS improvements that are to be implemented to ensure that early entry into fields and improper posting at field signs does not happen again.

Syngenta Hawaii, LLC
March 2, 2016
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YOU ARE HEREBY NOTIFIED that you have violated the Hawai'i Pesticide Law as set forth in HRS Chapter 149A. You are further notified that this violation and failure to immediately take actions to prevent further violations may result in the imposition of an administrative penalty of up to five thousand dollars (\$5,000.00) for each offense.

Further use of any pesticide product covered by the Hawai'i Pesticide Law must be in full compliance with the provisions of HRS Chapter 149A.

The issuance of this WARNING NOTICE is provided as a courtesy and does not waive or prohibit the Hawai'i Department of Agriculture from pursuing one or more of the enforcement remedies provided by HRS Chapter 149A to address the violations identified herein, and does not prejudice the right to seek additional penalties for failure to comply with HRS Chapter 149A.


Any subsequent violation of the provisions of HRS Chapter 149A may result in the assessment of an increased administrative penalty (monetary sanction) pursuant to HRS section 149A-41(b) and Section 4-66-66.1 of the *Hawai'i Administrative Rules*.

Any person who knowingly violates any provision of HRS Chapter 149A may be charged with a criminal offense pursuant to HRS section 149A-41(c), and upon conviction, may be fined up to twenty-five thousand dollars (\$25,000.00), or imprisoned for not more than one (1) year, or both.

YOU ARE SO NOTIFIED

Should you have any questions or concerns, please call Victoria Matsumura at the Pesticides Branch of the Hawai'i Department of Agriculture at (808) 973-9410.

ISSUED THIS 2nd DAY OF March, 2016.


THOMAS K. MATSUDA
Pesticides Program Manager

cc: United States Environmental Protection Agency, Region IX

INSPECTION TRACKING REPORT

INSPECTION DATE: 12/18/14
 BUSINESS NAME: **Syngenta Hawaii, LLC**
 ADDRESS: P.O. Box 879

INSPECTION TYPE: AG

COMPLAINT NO:
 PHONE: 337-1408
 ZIP: 96796

CITY: Waimea

ST: HI

INSPECTOR: Ann Kam
 INTERVIEWEE: Michael Girod
 APPLICATOR: Michael Girod
 CROP/SITE: corn

CERT NO.: K51337

CP WN

INSPECTOR COMMENTS: Self Reporting of early entry into field with active REI. Wrong posting at field sign. TRANSFER DATE: 12/22/14

SAMPLE NO	PESTICIDE-CHEMICAL/EPA REG. NO.	SUSPECTED VIOLATION(S)
	Lorsban Advanced / 62719-591	Incorrect REI information posted at field sign. Worker entered prior to REI expiration w/o proper PPE.
COMMENTS: Corn in field was less than 3 inches tall. Worker walked thru field twice - did not touch anything, did not feel ill.		

COMMENTS:

COMMENTS:

CASE PREPARATION

CASE RECEIVED:
 VIOLATION(S):

1/5/15
 WPS, POSTING, REI

CASE REVIEWED:

3/2/16

ENFORCEMENT ACTION & DATE: ~~None~~

WN, 3/2/16

PREP COMMENTS:

Company dissolved + Reformed, worker entered under REI

CIVIL PENALTY

DOCKET NO:

PROPOSED AMOUNT:

OTHER:

CHAIRPERSON REVIEW:

DATE NOV SENT TO AG:

NOV DATE:

DATE CA SENT TO AG:

RESPONDENT: DATE SIGNED:

HEARING DATE:

DATE RETURNED:

CONSENT DATE:

☐

CHAIRPERSON APPROVED

☐

NOV APPROVED BY AG

☐

CA APPROVED BY AG

SETTLED AMOUNT:

☐

SINGLE PAYMENT

☐

MULTIPLE PAYMENTS

TERMS:

OTHER PENALTY:

EPA REFERRAL DATE:

DATE CLOSED:

CIVIL COMMENTS:

AGRICULTURAL USE INSPECTION

Syngenta Hawaii, LLC

Mr. Michael Girod (Cert. No. K51337)

P.O. Box 879

Waimea, Hawaii 96796

Page 1

INSPECTOR'S NARRATIVE REPORT

On 12-17-14, Mr. Michael Girod, Spray Tech for Syngenta Hawaii, LLC (Syngenta), had called to self-report a restricted entry interval (REI) violation.

On 12-18-14, an after-the-fact use inspection was conducted with Girod. Mr. Robin Robinson, Agronomy Manager, Ms. Emilee Wedekind, IPM Coordinator, Mr. Jeremy Hausam, HSE Lead were present. The worker that entered into field 312-A15 before the REI was expired was Mr. Paul Mariano, Field Tech. Mariano was interviewed and his supervisor, Mr. Arthur Brun, Research Associate, was present.

Mariano explained on Saturday, 12-13-14, he was conducting "crop protection" in field 312-A15. Mariano said the spray sign was down (posted) and the field was sprayed on 12-10 with a REI at 5:45PM. Mariano said he placed his stuff near the field and noticed a slight funky odor. Mariano said he walked around the perimeter a couple of times. Mariano said he entered the middle of the field once or twice but briefly. Mariano said he just walked across the field but did not stop. Mariano said the corn in field 312-A15 was a couple of inches tall. Mariano said he did not feel any irritations after entering the field. Mariano said he did not pick up any rocks within the field. Mariano said he was wearing a long sleeved shirt, long pants, a hat, shades and shoes. Mariano made a drawing of the field and where he walked and provided an attestation.

Mariano said he has worked at Syngenta since 2008 and identified the central notification site (CNS) at the facility. Mariano said all workers are trained to read the field signs and are allowed to close field signs that have expired REI's.

Girod provided information on the application made on 12-12-14, between 5:45PM – 6:15PM. Girod said he mixed 1 gallon 64 fluid ounces of Lorsban Advanced (EPA Reg. No. 62719-591) and 9 fluid ounces of Indicate 5, a water buffer/spreader/sticker, into 180 gallons of water. Girod said he used the Hagie #4 boom sprayer to spray the 180 gallons of Lorsban Advanced dilution to 6 acres of corn for lesser corn stalk borer in Kekaha fields 312 A21, A22, A23, A24, A25, A15 and B07.

Girod said he wore a dust mist respirator, goggles, a long-sleeved shirt, long pants, chemical resistant boots, socks, chemical resistant gloves, and a chemical resistant apron while mixing and loading. Girod explained that he had a bunch of old stickers dated "Application...9-Dec...Time 545PM....DO NOT ENTER UNTIL: 10-Dec...Time 545PM". Girod said he forgot to change the date of application and REI time for field 312-A15. Girod said all others fields sprayed on 12-12-14 were posted properly.

AGRICULTURAL USE INSPECTION

Syngenta Hawaii, LLC

Mr. Michael Girod (Cert. No. K51337)

P.O. Box 879

Waimea, Hawaii 96796

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The Lorsban Advance label reads, "**Corn (Field, Sweet, Seed)...***Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.*" **"Agricultural Use Requirements...***PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and involves contact with anything that has been treated, such as plants, soil, or water, is:* • Coveralls over short-sleeved shirt and short pants • Chemical-resistant gloves made out of any waterproof material • Chemical-resistant footwear plus socks • Chemical-resistant headgear for overhead exposure...*Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.*"

It was recommended to Brun that he should check the CNS for active REIs prior to sending his workers into the field and to warn workers of active REIs. Brun said he is responsible for 114 workers and has supervisors under him that are responsible for that. Brun said he is a third party coordinator and does not feel it appropriate that he verify fields for REIs for his workers.

Girod, Robinson, and Hausam escorted me to Kekaha field 312 A15. The corn in his field was approximately 2 – 4 inches tall. A portable sanitol was locked at the edge of the field near the field sign. The Kekaha land field is also located across the road from field 312 A15. Photographs were taken.

The Lorsban Advanced applications for 12-12-14 was posted at the CNS.

Robinson and Hausam reviewed worker protection standards (WPS) improvements that will be implemented to ensure that early entry and improper posting at field signs, does not happen again.

Wedekind provided an attestation.



Ann Kam

Environmental Health Specialist

12-22-14



State of Hawaii
DEPARTMENT OF AGRICULTURE

NOTICE OF PESTICIDE
USE/MISUSE INSPECTION

ISLAND OFFICE ADDRESS:
Plant Industry Division
Pesticides Branch

4398A Paukoe St
Lilue, HI 96766

DATE
12/18/14

HOUR
9:00

AM
PM

NAME OF INDIVIDUAL
Michael Girod

TITLE
Spray Tech

NAME (Firm, Farmer, Homeowner, etc.)

Syngenta Hawaii, LLC

ADDRESS (Number, Street, City, State and ZIP Code)

7050 Kaunualii Hwy / P.O. Box 879
Kekaha, HI 96752 Naeuen, HI 96799

SIGNATURE OF STATE INSPECTOR

[Signature]

TITLE

Environmental Health Specialist

REASON FOR INSPECTION

- ☐ For the purpose of inspecting sites where pesticides are being used to collect data on the use of pesticides and to determine whether pesticides are being used in compliance with the Hawaii Pesticides Law (Chapter 149A, HRS) and Administrative Rules, Chapter 66, Pesticides, of the Department of Agriculture.
- ☒ For the purpose of inspecting sites where pesticides have been used and to determine whether the pesticides were used in compliance with the Hawaii Pesticides Law (Chapter 149A, HRS) and Administrative Rules, Chapter 66, Pesticides, of the Department of Agriculture.

VIOLATION SUSPECTED:

Self Reporting of REI Violation

CONSENT

- ☒ Voluntary Consent Necessary to enter for Inspection and/or Sampling.

The undersigned hereby voluntarily consents to an inspection of Syngenta Hawaii, LLC of which I am owner, Agent or Person-In-Charge, for the purposes of gathering information and/or samples in connection with the administration and enforcement of the Hawaii Pesticides Law (Chapter 149A, HRS) and Administrative Rules, Chapter 66, Pesticides, of the Department of Agriculture.

SIGNATURE

[Signature]

TITLE

SPRAY TECH

DATE

12/18/14

Form No. P-33
(Rev. 04/04)

DISTRIBUTION: White - DOA Record Copy
Yellow - Owner/Agent Copy
Pink - Inspector's Copy

HAWAII DEPARTMENT OF AGRICULTURE USE INVESTIGATION REPORT

1. PERSON INTERVIEWED			
a. NAME <i>Michael Girod</i>		b. ADDRESS <i>Syngenta Hawaii, LLC 7050 Kaunualii Hwy P.O. Box 879 Ke Kaha, HI 96752 Waima, HI 96796</i>	
c. TELEPHONE <i>337-1408</i>	d. CERTIFICATION NUMBER <i>K51337</i>		
2. APPLICATOR			
a. NAME <i>Michael Girod</i>		b. ADDRESS <i>same as above</i>	
c. TELEPHONE <i>337-1408</i>	d. CERTIFICATION NUMBER <i>K51337</i>		
3. SITE OF APPLICATION			
a. NAME <i>Syngenta Hawaii, LLC</i>		b. ADDRESS <i>same as above</i>	
c. TELEPHONE <i>337-1408</i>	d. ADDRESS <i>Kekaha Fields 312A21, A22, A23, A24, A25, A15, B07</i>		
d. TYPE OF BUSINESS <i>Seed Production</i>	e. CROP, AREA OR OBJECT TREATED <i>corn</i>	f. TARGET PEST <i>lesser corn stalk borer</i>	
g. DATE & TIME OF APPLICATION <i>12/12/14 5:45 - 6:15 PM</i>		h. WEATHER AT TIME OF APPLICATION <i>winds 4-8 mph from 180° For field 312A15</i>	
4. PESTICIDE APPLIED			
a. BRAND NAME <i>Lorsban Advanced</i>		b. EPA REG. NO. <i>62719-591</i>	
c. TYPE OF FORMULATION <i>Liquid Advanced</i>	d. BATCH NO. <i>AK-11</i>	e. CLASSIFICATION <input checked="" type="checkbox"/> Restricted <input type="checkbox"/> Non-Restricted	
5. RATE OF APPLICATION			
a. METHOD OF APPLICATION <i>Hagie #4 Boom Sprayer</i>		b. DILUTED MATERIAL APPLIED PER UNIT (Gallons/Acre) <i>180 gallons Lorsban Advanced / 6 Acres</i>	
c. DILUTION RATE <i>1 gal 64 fl. oz. Lorsban Advanced / 180 gallon water</i>		d. ACTUAL ACTIVE PER UNIT (Lbs./Acre) <i>19 fl. oz. indicate 5 (water buffer/spreader/s)</i>	
6. SAMPLES COLLECTED (List sample numbers)			
a. FORMULATION	b. DILUTED MATERIAL	c. RESIDUE	
7. WERE THE FOLLOWING LABELING INSTRUCTIONS FOLLOWED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "NO", check and explain.)			
<input type="checkbox"/> TARGET PEST	<input type="checkbox"/> CROP, AREA OR OBJECT TREATED	<input type="checkbox"/> CAUTIONARY LABELING	
<input type="checkbox"/> METHOD OF APPLICATION	<input type="checkbox"/> REENTRY INTERVAL	<input type="checkbox"/> ENDANGERED SPECIES	
<input type="checkbox"/> DILUTION USED	<input type="checkbox"/> APPLICATOR CERTIFIED	<input type="checkbox"/> GROUNDWATER PROTECTION	
<input type="checkbox"/> RATE OF APPLICATION	<input type="checkbox"/> PREHARVEST INTERVAL	<input checked="" type="checkbox"/> WORKER PROTECTION	
<input type="checkbox"/> OTHER:			
8. CONSEQUENCES OF USE (List any unusual results or adverse effects from treatment) <i>Self Reporting of REI violations.</i>			
9. REMARKS <i>1. This is after-the-fact inspection. 2. M. Girod said he wore dust mask, respirator, goggles, long sleeved shirt, long pants, chemical resistant boots + socks, chemical resistant gloves + chemical resistant cap on white mungo loading. 3. M. Girod said he forgot to change the date on the field sticker used to post Field 312A15. 4. M. Girod said all other fields were properly posted. 5. Paul Mariano, Field Tech, said on Sat, 12/13/14, he was conducting crop protection at Field 312A15. - He noticed an odor + checked field sign. 6. Mariano said he was wearing long sleeved shirt, long pants, shoes, a hat + shades. 7. Mariano said he entered Field 312A15 once or twice. 8. The Lorsban Advanced label reads, "Agriculture Use Requirements. 9. Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas. 10. REI of 24 hours unless PPE required for early entry is worn. 11. The Lorsban Advanced label reads, "PPE required for early entry. 12. Coveralls over short-sleeved shirt and short pants, chemical resistant gloves, chemical resistant footwear plus socks, chemical resistant headgear for overhead exposures. 13. The corn in field 312A15 was approximately 2-4 inches tall.</i>			
10. DATE OF INVESTIGATION <i>12/18/14</i>	11. TIME <i>9:00 AM - 11:15 AM</i>	12. INVESTIGATOR (Signature) <i>Em Ken</i>	13. TITLE <i>Environmental Health Spec</i>

RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.



Lorsban[®]

Advanced

Insecticide

For control of listed insects infesting certain field, fruit,

For additional Precautionary Statements, First Aid, Storage and Disposal and other use information see inside this label.

Insecticide

For control of listed insects infesting certain field, fruit, nut, and vegetable crops.

Active Ingredient:

chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate

chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate	40.2%
Other Ingredients	59.8%
Total	100.0%

Contains 3.755 lb of chlorpyrifos per gallon.
Contains petroleum distillates.

Keep Out Of Reach Of Children WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

For additional Precautionary Statements, First Aid, Storage and Disposal and other use information see inside this label.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Do not freeze

EPA Reg. No. 62719-591

EPA Est. 464-MI-1
900-018347 / 00309547

®Trademark of Dow AgroSciences LLC

Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Net Contents **2.5 gal**

Lorsban Advanced label
EPA Reg. No. 62719-591

Syngenta Hawaii
12-18-14

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May Be Fatal If Swallowed • Causes Skin Irritation • Causes Moderate Eye Irritation • Harmful If Inhaled • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals

Do not get on skin or on clothing. Avoid contact with eyes and breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

First Aid

Organophosphate

If swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Note to physician: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Note to physician: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

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Precautionary Statements

Hazard to Humans and Domestic Animals

WARNING

Note to physician: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data are useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Note to physician: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Personal Protective Equipment (PPE)

Materials that are chemical resistant to this product are barrier laminate and viton ≥14 mils.

Mixers and loaders using a mechanical transfer loading system and applicators using aerial application equipment must wear:

- Long-sleeved shirt and long pants
- Shoes and socks

In addition to the above, **mixers and loaders** using a mechanical transfer loading system must wear:

- Chemical-resistant gloves
- Chemical-resistant apron
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any R, P, or HE filter

See Engineering Controls for additional requirements.

All other mixers, loaders, applicators and handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant apron when mixing or loading or exposed to the concentrate
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any R, P, or HE filter.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

Mixers and loaders supporting aerial applications must use a mechanical transfer system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)] for dermal protection, and must:

- Wear the personal protective equipment required above for mixers/loaders
- Wear protective eyewear if the system operates under pressure, and
- Be provided and have immediately available for use in an emergency, such as broken package, spill, or equipment breakdown: coveralls, chemical resistant footwear and chemical-resistant headgear if overhead exposure

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

Use of human flaggers is prohibited. Mechanical flagging equipment must be used.

areas. Do not contaminate water when disposing of equipment washwaters or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Directions for Use

Restricted Use Pesticide

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

This product cannot be reformulated or repackaged into other end-use products.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed

chemical-resistant headgear if overhead exposure

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

Use of human flaggers is prohibited. Mechanical flagging equipment must be used.

When handlers use closed cab motorized ground application equipment in a manner that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is toxic to fish, aquatic invertebrates, small mammals and birds. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated

specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Certified crop advisors or persons entering under their direct supervision under certain circumstances may be exempt from the early reentry requirements pursuant to 40 CFR Part 170.

PPE required for early entry into treated areas that is permitted under the Worker Protection Standard and involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made out of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Product Information

Lorsban® Advanced insecticide is an emulsion in water for use in listed crops. This product resists washoff once it is dry. Target pests and application rates are provided in the accompanying

groups) provided the products are registered for the intended use.

- Base insecticide use on comprehensive Integrated Pest Management (IPM) programs.
- Monitor treated insect populations in the field for loss of effectiveness.
- Contact your local extension specialist, certified crop advisor, and/or manufacturer for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact Dow AgroSciences by calling 800-258-3033.

Spray Drift Management

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland sites, woodlands, pastures, rangelands, or animals.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making the decision to apply this product.

Observe the following precautions when spraying Lorsban Advanced adjacent to permanent bodies of water such as rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds.

The following treatment setbacks or buffer zones must be utilized for applications around the above-listed aquatic areas with the following application equipment:

Application Method	Required Setback (Buffer Zone) (feet)
ground boom	25
chemigation	25

procedures allowed by state and local authorities.

Product Information

Lorsban® Advanced insecticide is an emulsion in water for use in listed crops. This product resists washoff once it is dry. Target pests and application rates are provided in the accompanying tables.

Use Precautions and Restrictions

Insect control may be reduced at low spray volumes under high temperature and wind conditions.

Some reduction in insect control may occur under unusually cool conditions.

Flood irrigation: To avoid contamination of irrigation tail waters, do not flood irrigate within 24 hours following a soil surface or foliar application of Lorsban Advanced.

Do not aerially apply this product in Mississippi.

Insecticide Resistance Management (IRM)

Lorsban Advanced contains a Group 1B insecticide. Insect/mite biotypes with acquired resistance to Group 1B may eventually dominate the insect/mite population if Group 1B insecticides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Lorsban Advanced or other Group 1B insecticides.

To delay development of insecticide resistance:

- Avoid consecutive use of insecticides with the same mode of action (same insecticide group) on the same insect species.
- Use tank mixtures or premix products containing insecticides with different modes of action (different insecticide

for applications around the above-listed aquatic areas with the following application equipment:

Application Method	Required Setback (Buffer Zone) (feet)
ground boom	25
chemigation	25
orchard airblast	50
aerial (fixed wing or helicopter)	150

Making applications when wind is blowing away from sensitive areas is the most effective way to reduce the potential for adverse effects.

Follow these spray drift **best management practices** to avoid off-target drift movement from applications.

Aerial Application

- The boom width must not exceed 75% of the wingspan or 90% of the rotor blade.
- Nozzles must always point backward, parallel with the air stream, and never be pointed downward more than 45 degrees.
- Nozzles must produce a medium or coarser droplet size (255 to 340 microns volume median diameter) per ASABE Standard 572.1 under application conditions. Airspeed, pressure, and nozzle angle can all effect droplet size. See manufacturer's catalog or USDA/NAAA Applicator's Guide for spray size quality ratings.
- Do not make applications at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

- Use upwind swath displacement and apply only when wind speed is 3 to 10 mph as measured by an anemometer. Do not apply product when wind speed exceeds 10 mph.
- If application includes a no-spray zone, do not release spray at a height greater than 10 feet above the ground or crop canopy.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

Aerial Drift Reduction Advisory

This section is advisory in nature and does not supercede the mandatory label requirements.

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent adverse effects from drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size:

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the best practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray

high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Do not make applications during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: Apply the pesticide only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Boom Application

The following mandatory spray drift best management practices are required to reduce the likelihood of off-target drift movement from ground applications.

- Choose only nozzles and pressures that produce a medium or coarse droplet size (255 to 400 microns volume median diameter) per ASABE Standard 572. See manufacturer's catalog or USDA/NAAA Applicator's Guide for spray size quality ratings.

indicates good vertical air mixing.

Sensitive Areas: Apply the pesticide only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Boom Application

The following mandatory spray drift best management practices are required to reduce the likelihood of off-target drift movement from ground applications.

- Choose only nozzles and pressures that produce a medium or coarse droplet size (255 to 400 microns volume median diameter) per ASABE Standard 572. See manufacturer's catalog or USDA/NAAA Applicator's Guide for spray size quality ratings.
- Apply with nozzle height no more than 4 feet above the ground or crop canopy.
- Do not apply product when wind speed exceeds 10 mph as measured by an anemometer.

Orchard Airblast Application

The following mandatory spray drift best management practices are required to reduce the likelihood of off-target drift movement from airblast applications.

- Direct nozzles so spray is not projected above the canopies.
- Apply only when wind speed is 3 to 10 mph at the application site as measured by an anemometer outside of the orchard/vineyard on the upwind side.
- Outward pointing nozzles must be shut off when turning corners at row ends.

The applicator should take into account the following best management practices to reduce off-site spray drift. This section is advisory and does not supercede mandatory label requirements.

- Number of nozzles, nozzle orientation and spray volume, air speed and wind direction are key factors in adjusting airblast spray delivery to match the height and density of the crop

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the best practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Do not make applications at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath adjustment distance with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Do not apply below 1.5 mph due to variable wind direction and

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- High air volumes deliver spray more efficiently than air at high speed. Reducing forward travel speed decreases the air speed necessary to deliver the spray to the top of the crop canopy.
- Use air guides along with the number and orientation of spray nozzles to achieve the desired spray coverage and directional control.
- Take the following steps to minimize drift and the amount of non-target spray:
 - Orient nozzles and adjust air speed/volume/direction to force the spray through the crop canopy but not allow drift past the canopy.
 - Shut off spray delivery when passing gaps in crop canopy within rows.
 - Spray the outside rows of orchards from outside in, directing the spray into the orchard and shutting off nozzles on the side of the sprayer away from the orchard.
 - When treating smaller trees, vines or bushes, shut off top nozzles to minimize over the top spray movement.

Application Directions

Broadcast Foliar Application

Apply with conventional power-operated spray equipment using nozzles and spray pressures specified for insecticides. Apply Lorsban Advanced in a spray volume of not less than 2 gallons per acre (gpa) for aerial application equipment (fixed wing or helicopter) or not less than 10 gpa for ground equipment, unless otherwise specified. Increase spray volume to ensure adequate coverage with increased density and height of crop canopy.

Ground Application: Orient the boom and nozzles so that uniform coverage is obtained. The swath width should not be wider than the boom. Follow nozzle manufacturer's specifications for insecticide nozzles with respect to nozzle type, pressure, and spacing.

Broadcast Soil Application

Apply with conventional power-operated spray equipment that will apply the product uniformly to the soil surface. Use nozzles that produce medium or coarse droplets (235 to 400 microns).

Note: Unless otherwise indicated in specific use directions, the application rates for chemigation are the same as those specified for broadcast application.

Directions for Sprinkler Chemigation: Apply this product only through the following sprinkler irrigation systems: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, micro sprinkler, or hand move. Do not apply this product through any other type of irrigation system. Do not apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

Chemigation Equipment Preparation: The following use directions must be followed when Lorsban Advanced is applied through sprinkler irrigation systems. Thoroughly clean the chemigation system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injection system with soap or a cleaning agent and water. Determine the amount of Lorsban Advanced needed to cover the desired acreage. Mix according to instructions in the Mixing Directions section and bring mixture to desired volume. Maintain continuous agitation during mixing and throughout the application period.

Chemigation Equipment Calibration: In order to calibrate the irrigation system and injector to apply the mixture containing Lorsban Advanced, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Calculate the amount of product required and premix; 3) Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 4) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute if needed. 5) Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the timed output of the injector pump be checked at least twice before operation, and the system monitored during operation.

Chemigation Equipment Requirements:

- The system must contain an air gap, an approved backflow prevention device, a functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American

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Application Directions

Broadcast Foliar Application

Apply with conventional power-operated spray equipment using nozzles and spray pressures specified for insecticides. Apply Lorsban Advanced in a spray volume of not less than 2 gallons per acre (gpa) for aerial application equipment (fixed wing or helicopter) or not less than 10 gpa for ground equipment, unless otherwise specified. Increase spray volume to ensure adequate coverage with increased density and height of crop canopy.

Ground Application: Orient the boom and nozzles so that uniform coverage is obtained. The swath width should not be wider than the boom. Follow nozzle manufacturer's specifications for insecticide nozzles with respect to nozzle type, pressure, and spacing.

Broadcast Soil Application

Apply with conventional power-operated spray equipment that will apply the product uniformly to the soil surface. Use nozzles that produce medium or coarse droplets (235 to 400 microns). Unless otherwise indicated, a spray volume of 10 gpa or more is needed. For band application, use proportionally less spray volume.

Aerial Application

Use a minimum spray volume of 2 gpa. Mark swaths by mechanical flagging, permanent markers or GPS equipment.

Chemigation Application

Apply Lorsban Advanced through properly equipped chemigation systems for insect control in alfalfa, almond (orchard floors only), citrus (orchard floors only), corn (field and sweet), cotton, cranberry, peppermint, sorghum, soybeans, spearmint, sugarbeet, orchard floors (pecan and walnut), and wheat, or other crops as specified in Dow AgroSciences supplemental labeling. Do not apply this product by chemigation unless specified in crop-specific directions in this label or Dow AgroSciences supplemental labeling. Do not apply to labeled crops through any other type of irrigation system.

Chemigation Equipment Calibration: In order to calibrate the irrigation system and injector to apply the mixture containing Lorsban Advanced, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Calculate the amount of product required and premix; 3) Determine the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 4) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes (minus time to flush out) to cover the treatment area. This value equals the gallons per minute output that the injector or eductor must deliver. Convert the gallons per minute to milliliters or ounces per minute if needed. 5) Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the timed output of the injector pump be checked at least twice before operation, and the system monitored during operation.

Chemigation Equipment Requirements:

- The system must contain an air gap, an approved backflow prevention device, a functional check valve, vacuum relief valve (including inspection port), and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information or state specific regulations.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

is the responsibility of the person offering such mixture for sale or distribution.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 28 days before harvest.
- Do not make more than three applications of Lorsban Advanced or other product containing chlorpyrifos per year (does not include foliar applications to citrus trees).
- Do not apply more than a total of 2.82 lb ai chlorpyrifos (3 quarts of Lorsban Advanced) per acre per year.
- Maximum single application rate is 1 lb ai chlorpyrifos (2 pints of Lorsban Advanced) per acre.
- Do not make a second application of Lorsban Advanced or other product containing chlorpyrifos within 10 days of the first application.
- Do not allow meat or dairy animals to graze in treated areas.

Corn (Field, Sweet, Seed)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for entry is worn.

Conservation Tillage: Preplant, At-Plant, or Preemergence Applications

Apply as a broadcast spray to surface trash and exposed soil using power-operated ground spray equipment. Use a total spray volume of 20 gpa or more. Use a higher rate in the rate range to extend residual control.

Tank Mixing: Lorsban Advanced may also be applied in tank mixtures with paraquat or glyphosate and/or liquid fertilizer solutions. See Mixing Directions section for tank mixing instructions. Read and carefully follow all applicable directions, restrictions, and precautions on labeling for each product used in combination with Lorsban Advanced.

Target Pests	Lorsban Advanced (pint/acre)
grasshoppers	0.5 - 1
aphids	1 - 2
armyworms	
chinch bugs (1)	
corn rootworm adults (2)	
cutworms (3)	
European corn borer (5)	
fla beetle adults (1)	
southern corn leaf beetle webworms (4)	
western bean cutworm	
brown marmorated stink bug	1.5 - 2
corn earworm	
southwestern corn borer (6)	2
billbugs (1)	
common stalk borer (9)	
corn rootworm larvae (7), (8)	
lesser cornstalk borer	

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions:

1. **Billbug, chinch bug, or flea beetle:** For best control, ground apply in a minimum spray volume of 20 to 40 gpa at 40 psi. If corn is less than 6 inches tall, apply in a 9- to 12-inch wide band over the row. For corn more than 6 inches tall, apply using drop nozzles directed to the base of the plant. Do not reduce the application rate for banded or directed applications. Concentrate the full labeled dosage rate in the treated zone. When chinch bugs continue to immigrate to corn over a prolonged period or under extreme pest pressure, a second application may be needed.
2. **The specified dosage will control silk clipping by corn rootworm adults.**
3. **Cutworms:** It is preferable to apply Lorsban Advanced when soil is moist and worms are active on or near the soil surface. If ground is dry, cloddy, or crusted at time of treatment, worms

cultivation. Do not base of the plant the insecticide application of Lorsban Advanced at-planting a irrigation system corn rootworm appearance of water to wet the soils are wet, an application using surface runoff. application in 9. Do not use Lorsban Advanced herbicide common stalk after application paraquat herbicide

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 28 days before harvest of grain.
- Do not make more than three applications of Lorsban Advanced or other product containing chlorpyrifos per year (does not include foliar applications to citrus trees).
- Maximum single application rate is 1 lb ai chlorpyrifos (2 pints of Lorsban Advanced) per acre.
- Do not make a second application of Lorsban Advanced or other product containing chlorpyrifos within 10 days of the first application.
- If more than 1 lb ai chlorpyrifos (2 pints of Lorsban Advanced) per acre is applied, only one additional application of Lorsban Advanced or other product containing chlorpyrifos at 1 of 2.3 lb ai chlorpyrifos (2 pints of Lorsban Advanced) per acre may be applied.
- Do not apply Lorsban Advanced in combination with other herbicides.
- Do not aerially apply Lorsban Advanced.

Pest-Specific Use Directions:

1. Excludes fire, harvester, carpenter, and pharaoh ants.

Application with Dry Bulk Fertilizer: Most dry fertilizers can be used for impregnation with Lorsban Advanced. Apply Lorsban Advanced at the equivalent broadcast rate using a minimum of 200 lb per acre of dry bulk fertilizer.

Impregnation of Dry Bulk Fertilizer: Use a closed rotary drum mixer suitable for blending of dry bulk fertilizer equipped with an internal spray nozzle. Add the dry fertilizer to the mixer followed by the appropriate amount of Lorsban Advanced. After mixing the dry ingredients to ensure uniformity, add water through the spray nozzle in an amount sufficient to just dampen the mixture (4 to 8 pints of water per ton of fertilizer). Position the spray nozzle within the mixer to provide uniform coverage of the tumbling mixture of fertilizer and Lorsban Advanced. Addition of water will cause Lorsban Advanced to uniformly adhere to the dry bulk fertilizer. Apply bulk fertilizers impregnated with Lorsban Advanced immediately; do not store it. Foliar applications of Lorsban Advanced may be made in addition to the orchard floor treatments.

Compliance with any and all federal and state laws and regulations relating to the Lorsban Advanced and fertilizer mixture is the responsibility of the person offering such mixture for sale or distribution.

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 28 days before harvest.
- Do not make more than three applications of Lorsban Advanced or other product containing chlorpyrifos per year (does not include foliar applications to citrus trees).
- Do not apply more than a total of 2.82 lb ai chlorpyrifos (3 quarts of Lorsban Advanced) per acre per year.
- Maximum single application rate is 1 lb ai chlorpyrifos (2 pints of Lorsban Advanced) per acre.
- Do not make a second application of Lorsban Advanced or other product containing chlorpyrifos within 10 days of the first application.
- Do not allow meat or dairy animals to graze in treated areas.

Corn (Field, Sweet, Seed)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for entry is worn.

Target Pests	Lorsban Advanced (pint/acre)
armyworms	1 - 2
cutworms	

Postemergence Application

Apply as a postemergence broadcast spray using sufficient spray volume to ensure thorough coverage of treated plants, but no less than 15 gpa for ground spray equipment or 2 to 5 gpa for aircraft equipment. Control may be reduced at low spray volumes under high temperature and wind conditions. Lorsban Advanced may be tank mixed with glyphosate products, such as Duramax® herbicide or Durango® DMA® herbicide, when application is to be made to glyphosate-tolerant corn.

Chemigation: Lorsban Advanced may be broadcast applied postemergence through sprinkler irrigation systems at specified application rates to control listed foliar pests. For best results, tank mix Lorsban Advanced with 2 pints of non-emulsifiable oil. See Chemigation Application section.

Target Pests	Lorsban Advanced (pint/acre)
grasshoppers	0.5 - 1
aphids	1 - 2
armyworms	
chinch bugs (1)	
corn rootworm adults (2)	
cutworms (3)	
European corn borer (5)	
fla beetle adults (1)	
southern corn leaf beetle webworms (4)	
western bean cutworm	
brown marmorated stink bug	1.5 - 2
corn earworm	
southwestern corn borer (6)	2
billbugs (1)	
common stalk borer (9)	
corn rootworm larvae (7), (8)	
lesser cornstalk borer	

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may be protected from the spray and effectiveness will be reduced. Shallow incorporation using a rotary hoe or other suitable equipment immediately before or soon after treatment may improve control. A second application may be required if damage or density levels exceed economic thresholds established for your area.

4. **Webworm:** For control, shallow incorporation using a rotary hoe or other suitable equipment immediately before or soon after treatment is necessary.

5. **European corn borer:** For control, use 1.5 to 2 pints per acre when application is made with power-operated ground or aerial equipment, or 1 to 2 pints per acre when application is made through a sprinkler irrigation system. University research indicates that achieving greater than 50% control of first-generation European borer with a single liquid insecticide treatment is highly dependent upon timing, insecticide placement, and weather conditions.

6. **Southwestern corn borer:** A second application may be applied 21 days later if needed due to reinfestation.

7. **Corn rootworm larvae:** For postemergence control, apply at cultivation. Direct the spray to both sides of the row at the base of the plants just ahead of the cultivator shovels. Cover the insecticide with soil around the brace roots. A cultivation application of Lorsban Advanced may be made in addition to an at-planting application of Lorsban 15G.

8. Lorsban Advanced may also be applied through sprinkler irrigation systems at the rate of 2 pints per acre to control corn rootworm larvae. Time application to coincide with the appearance of the second instar larvae. Apply with enough water to wet the root zone to the depth control needed. If soils are wet, allow enough soil drying to occur such that an application using a minimum amount of water will not produce surface runoff. See Chemigation Application section for application instructions.

9. Do not use Lorsban Advanced in combination with a burndown herbicide for control of common stalk borer. For common stalk borer control, treat approximately 11 days after application of glyphosate or after burndown with paraquat herbicide is complete (3 to 5 days).

Specific Use Restrictions:

Cotton
(Not for use in Mississippi)

Worker Restricted Entry Interval: Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Apply as a broadcast foliar spray using aircraft or ground spray equipment (see separate rate table for Arizona and California). Use a higher rate in the rate range when there is increased pest pressure. Use sufficient spray volume to ensure thorough coverage of treated plants, but no less than 10 gpa for ground spray equipment or 2 gpa for aircraft equipment. Increase spray volume when foliage is dense and/or pest population is high and/or under high temperature and wind conditions. Treat when field counts indicate damaging insect populations are developing or present.

Chemigation: Lorsban Advanced may be applied through sprinkler irrigation systems at specified broadcast application rates to control listed foliar pests. See Chemigation Application section. Proper application methods are necessary to ensure thorough spray coverage and correct rate, and minimize off-target drift. Follow Application Directions for ground and aerial application and Spray Drift Management recommendations in Product Information section of this label.

All States Except Arizona and California

Target Pests	Lorsban Advanced (pint/acre)
cotton fleahopper (1) plant bugs (1) (<i>Lygus</i> , <i>Mirids</i>)	0.37 - 1
grasshoppers thrips	0.5 - 1
cotton aphid fall armyworm	0.5 - 2

corn rootworm larvae. Time application to coincide with the appearance of the second instar larvae. Apply with enough water to wet the root zone to the depth control needed. If soils are wet, allow enough soil drying to occur such that an application using a minimum amount of water will not produce surface runoff. See Chemigation Application section for application instructions.

9. Do not use Lorsban Advanced in combination with a burndown herbicide for control of common stalk borer. For common stalk borer control, treat approximately 11 days after application of glyphosate or after burndown with paraquat herbicide is complete (3 to 5 days).

Specific Use Restrictions:

- **Preharvest Interval:** Do not apply within 21 days before harvest of grain, ears, forage or fodder.
- Do not make more than three applications of any product containing chlorpyrifos per season, including the maximum allowed of two granular applications, at the 1 lb ai chlorpyrifos rate.
- Do not apply more than 3 lb ai chlorpyrifos (6.38 pints of Lorsban Advanced) per acre per season.
- Maximum single application rate is 1 lb ai chlorpyrifos (2.13 pints of Lorsban Advanced) per acre.
- Do not make a second application of Lorsban Advanced or other product containing chlorpyrifos within 10 days of the first application.
- If more than 1 lb ai granular chlorpyrifos per acre is applied at-plant (for a maximum of 1.3 lb ai per acre per season), only one additional application of a liquid product containing chlorpyrifos at 1 lb ai per acre is allowed per season, for a total of 2.3 lb ai chlorpyrifos per acre per season.
- Do not apply in tank mixes with Steadfast or Lightning herbicides.
- Do not aerially apply this product in Mississippi.

Use Directions.

control, ground a at 40 psi. 12-inch ches tall, the plant. directed e rate in the nigrate to est pressure, corn

anced when soil surface. ment, worms

All States Except Arizona and California

Target Pests	Lorsban Advanced (pint/acre)
cotton fleahopper (1) plant bugs (1) (<i>Lygus</i> , <i>Mirids</i>)	0.37 - 1
grasshoppers thrips	0.5 - 1
cotton aphid fall armyworm yellowstriped armyworm	0.5 - 2
spider mites (2)	1
beet armyworm cotton bollworm (3) cutworms pink bollworm salt marsh caterpillar tobacco budworm (3)	1.5 - 2

Numbers in parentheses (-) refer to Pest-Specific Use Directions.

Pest-Specific Use Directions:

1. The 0.37 pint per acre rate will not provide a high degree of control but, compared to the 1 pint per acre rate, will minimize the damage from plant bugs and cotton fleahoppers and allow increased survival and build-up of beneficial insects to aid in the control of bollworms infesting cotton.
2. **Spider mites:** When large numbers of eggs are present, scout the treated area in 3 to 5 days. If newly hatched nymphs are present, make a follow-up application of a non-chlorpyrifos product that is effective against mites.



Brandt Indicate 5 label

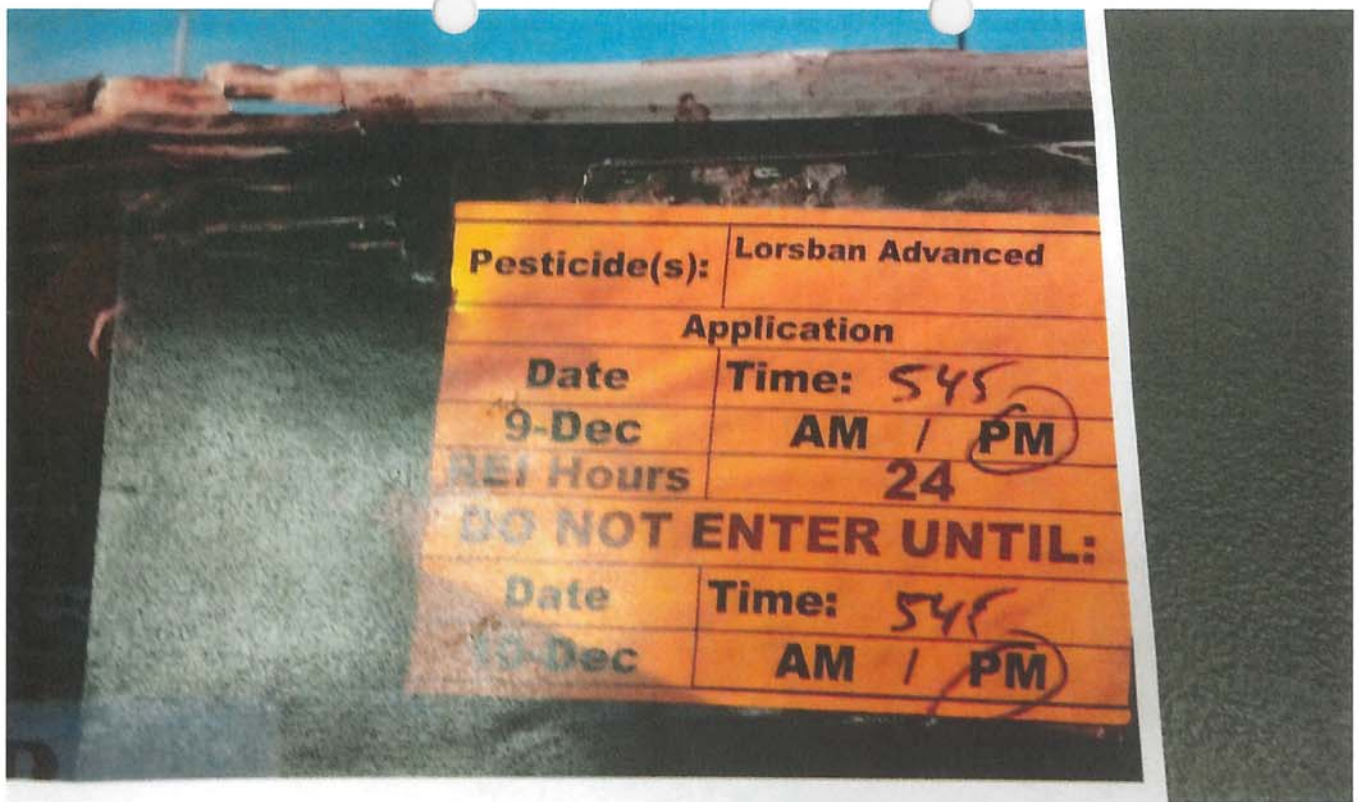


Lorsban Advanced label
EPA Reg. No. 62719-591

Syngenta Hawaii
12-18-14



Field sign at field 312 A15.



Wrong sticker posted at field 312 A15 for 12-12-14 application made at 5:45-6:15PM.

Syngenta
Hawaii
12/18/14



Sanitol at field 312 A15.



Corn in field 312 A15.



View from field 312 A15, looking southeast towards land fill.

Syngenta Hawaii
12-18-14 *ah*

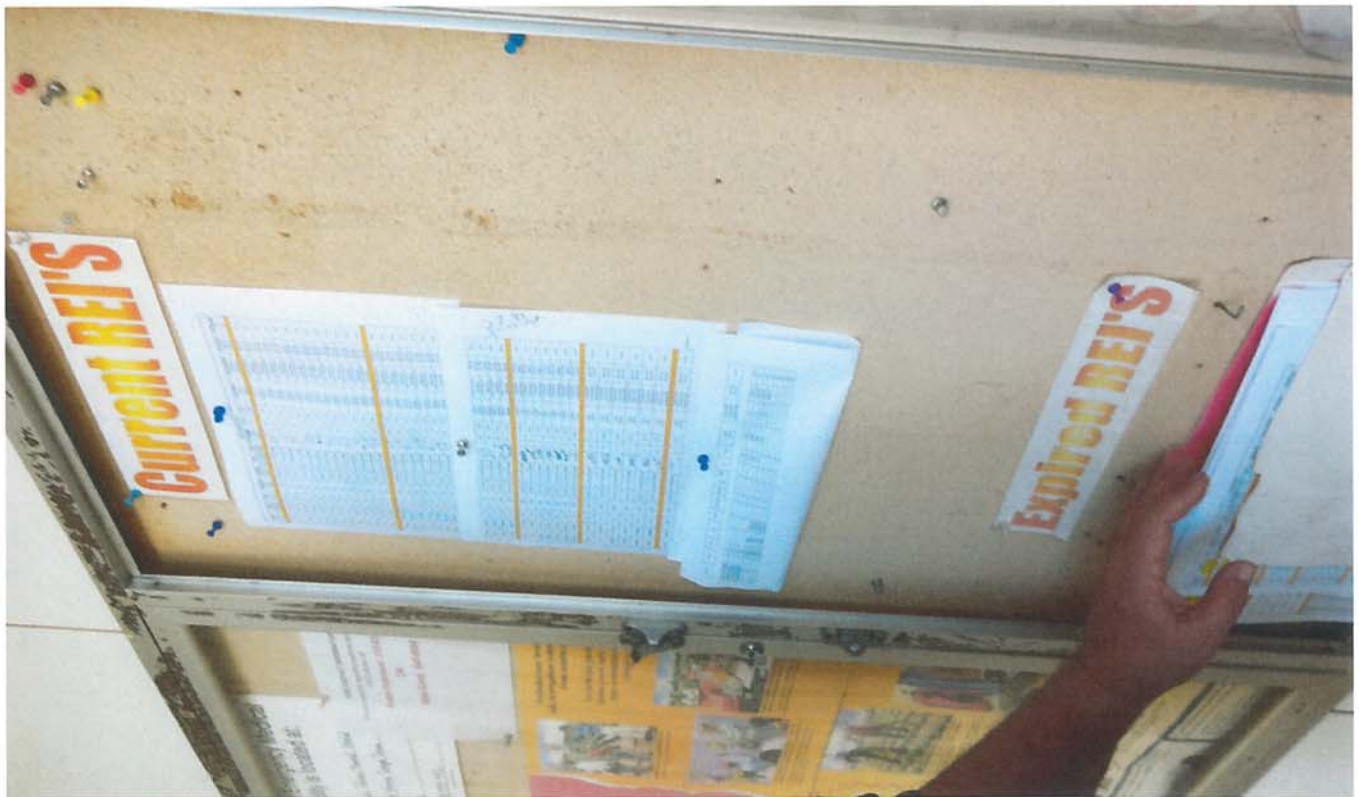
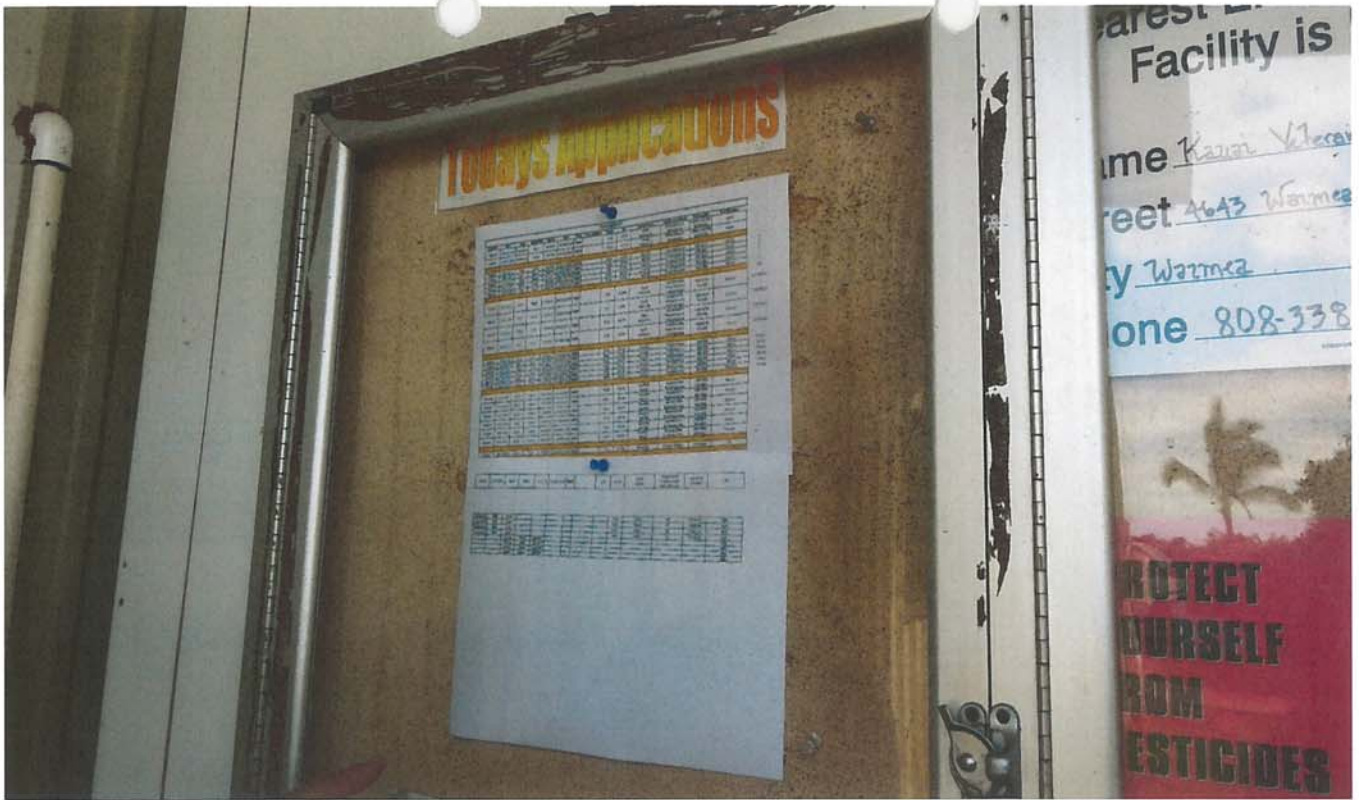


View from field 312 A15 - looking South, towards Kaunualii Highway & towards Shrimp farm.



Hagle #4 boom sprayer used.

Syngenta Hawaii
12-18-14 *a*



CNS

Syngenta Hawaii
12-18-14

Kekaha	312 A21	Corn	12/12/2014	530	0.74	24 HR	Lorsban	Chlorpyrifos	62719-591	Brad
Kekaha	312 A22	Corn	12/12/2014	535	0.74	24 HR	Lorsban	Chlorpyrifos	62719-591	Brad
Kekaha	312 A23	Corn	12/12/2014	600	0.65	24 HR	Lorsban	Chlorpyrifos	62719-591	Brad
Kekaha	312 A24	Corn	12/12/2014	605	0.74	24 HR	Lorsban	Chlorpyrifos	62719-591	Brad
Kekaha	312 A25	Corn	12/12/2014	610	0.62	24 HR	Lorsban	Chlorpyrifos	62719-591	Brad
Kekaha	312 A15	Corn	12/12/2014	545	0.64	24 HR	Lorsban	Chlorpyrifos	62719-591	Joe
Kekaha	312 B07	Corn	12/12/2014	615	0.99	24 HR	Lorsban	Chlorpyrifos	62719-591	Kuuha

Syngenta Hawaii
12-18-14 *am*

M. Girod's PPE: Long-sleeved shirt, long pants, chemical resistant boots, chemical resistant gloves, goggles



Mixing devices.

Syngenta Hawaii
12-18-14 *ak*



<p align="center">HAWAII DEPARTMENT OF AGRICULTURE ATTESTATION</p>	<p>Sample Number(s)</p>
<p>Island</p> <p><i>Kauai</i></p>	<p><i>_____</i></p>

Before a representative of the Hawaii Department of Agriculture, personally appeared and says:

Paul Mariano

On Dec 13, 2014 Saturday, I was working field 312A15. The ^{sign} ~~had~~ ^{was} down. It said that it was sprayed on Dec. 10 with a REI at 5:45 pm. I sat my stuff near the field. There was a slight funky odor. I walked around the perimeter a couple times. I enter the middle of the field 1 to 2 times but briefly and didn't stop. I didn't feel any irritations. I drew the example on the back of the sheet. I was pretty much there the whole day but move to the other field next by when its net was removed. I was wearing long sleeves and long pants, shoes, and a hat with shades.

I hereby affirm that the foregoing statement is true to the best of my knowledge and belief

Paul Mariano

Signature

12-18-14

Date

Attested to at (city and state)

Kekaha, Hawaii

this

18th

day of

December 2014.

Signature of HDOA Representative

Environmental Health Specialist

Title

HAWAII DEPARTMENT OF AGRICULTURE
ATTESTATION

Sample Number(s)

Island

Kauai

Before a representative of the Hawaii Department of Agriculture,
personally appeared and says:

Emilee Wedekind

We have reviewed an early entry to a field on 12/12/2014 from an application of Lorsban Advanced (con). Friday 12/12/14 an application of Lorsban Advanced by a certified applicator at 5:45 PM at field 312A15. Old stickers were used to post the BEI application: Date, time applied and expired. The date of application and expiration was not changed to reflect the correct date of application. On Saturday 12/13/14 a crop protector approached the sign and saw that according to the sign the field was cleared to enter, so they put the sign up and entered the field to start their crop protection services. A picture of the label on the field sign was provided, copy of the tank mix and application record was provided. The crop protector that walked into the BEI came in and gave a statement as well and did not feel ill. Others involved in this inspection included: Robin Robinson (agronomy manager), Mike Girard (sprayer operator), Jeremy Hausman (Safety), Arthur Brun (3rd party coordinator) and the crop protector. WPS improvements that are going to be implemented were also shared with Ann Kam.

I hereby affirm that the foregoing statement is true to the best of my knowledge and belief

Emilee Wedekind

Signature

12/18/2014

Date

Attested to at (city and state)

Kekaha, Hawaii

this

18th

day of

December 2014.

Ann Kam

Signature of HDOA Representative

Environmental Health Specialist

Title